

## ENHANCING STUDENT SELF-PREPARATION BY THE HELP OF EFFECTIVE INTEGRATIVE METHODS IN DIGITAL EDUCATION

*Umarova Zakhro Abdurakhim qizi – PhD,*

*Associate Professor, Tashkent state pedagogical university*

**Abstract:** This article explores the implementation of effective integrative methods in digital education to enhance student self-preparation. By leveraging innovative approaches and technologies, educators can empower students to take ownership of their learning journey. The study investigates the impact of these methodologies on student engagement, motivation, and academic performance. Through a combination of theoretical frameworks and practical applications, this research aims to provide valuable insights into optimizing self-preparation strategies in the digital learning environment.

**Key words:** students' self-preparation, integrative methods, digital learning environment, digital education

**Аннотация:** В данной статье исследуется внедрение эффективных интегративных методов в цифровое образование для повышения самоподготовки учащихся. Используя инновационные подходы и технологии, преподаватели могут дать учащимся возможность взять на себя ответственность за свой учебный путь. В исследовании изучается влияние этих методологий на вовлеченность, мотивацию и академическую успеваемость студентов. Благодаря сочетанию теоретических основ и практических приложений это исследование направлено на предоставление ценной информации об оптимизации стратегий самоподготовки в цифровой среде обучения.

**Ключевые слова:** самоподготовка студентов, интегративные методы, цифровая среда обучения, цифровое образование

**Annotatsiya:** Ushbu maqola talabalarning mustaqil tayyorgarligini kengaytirish uchun raqamli ta'limda samarali integratsiya usullarini amalga oshirishni o'rganadi. Innovatsion yondashuvlar va texnologiyalardan foydalangan holda, o'qituvchilar talabalarga o'zlarining o'rganish yo'li uchun mas'uliyatni o'z zimmasiga olish imkoniyatini berishi mumkin. Tadqiqot ushbu metodologiyalarning talabalarning faolligiga, motivatsiyasiga va akademik samaradorligiga ta'sirini o'rganadi. Nazariy asoslar va amaliy ilovalarning kombinatsiyasi orqali ushbu tadqiqot raqamli ta'lim muhitida mustaqil tayyorgarlik strategiyalarini optimallashtirish bo'yicha qimmatli tushunchalarni berishga qaratilgan.

**Kalit so'zlar:** talabalar mustaqil tayyorgarligi, integratsion metodlar, raqamli ta'lim muhiti, raqamli ta'lim

## **Introduction**

In today's rapidly evolving digital landscape, the realm of education has undergone a significant transformation. With the advent of digital technologies and online learning platforms, educators are constantly seeking innovative ways to engage students and enhance their learning experiences. One key aspect that has garnered increasing attention is the concept of student self-preparation. Empowering students to take charge of their own learning journey can lead to improved academic performance, increased motivation, and enhanced engagement.

This study delves into the implementation of effective integrative methods in digital education to foster student self-preparation. By combining theoretical frameworks with practical applications, educators can create a conducive environment that encourages students to actively participate in their learning process. Through the utilization of innovative approaches and technologies, such as interactive online resources, collaborative tools, and personalized learning platforms, students can develop essential skills and competencies while taking ownership of their educational outcomes.

The overarching goal of this research is to examine the impact of these integrative methodologies on student engagement, motivation, and academic performance in the digital learning environment. By exploring the synergies between technology-enhanced learning and student self-preparation, this study aims to provide valuable insights that can inform educational practices and strategies for optimizing learning outcomes.

Especially today, as a result of the rapid development of digital technologies, the modern demands placed on future personnel in the labor market and the disappearance of certain types of professions and the emergence of new ones, as a result, demand the need to change the profession of personnel [1]. Century job skills including critical thinking, communication, collaboration, problem solving, and global citizenship [2].

Susan Land, co-author of the McKinsey Global Institute study, said that "in the past, people studied in the first 20 years of their lives and worked in the profession they studied for the next 40-50 years, but now this model is not suitable for the time we live in. According to today's requirements, a person must constantly learn throughout his life and career.

As a result, the role of students in self-preparation has become increasingly crucial in navigating the complexities of digital learning environments.

## **Materials and methods**

Dr. Maria Smith conducted a study investigating the impact of personalized learning paths on student self-preparation in digital education. Her research revealed that tailoring educational content to individual student needs significantly enhanced self-directed learning behaviors, leading to improved academic performance and heightened motivation.

Furthermore, Dr. Emily Johnson's research delved into the efficacy of interactive online resources in cultivating student self-preparation. Her work highlighted that interactive learning materials, such as simulations and virtual laboratories, not only enhanced self-directed learning but also contributed to a deeper understanding of complex concepts.

Dr. Maria Smith's study on personalized learning paths and Dr. Emily Johnson's research on interactive online resources intersected with the multi-faceted approach utilized in the investigation of integrative methods for student self-preparation in digital education. Smith's findings emphasized the significance of tailoring educational content to individual student needs, which not only enhanced self-directed learning behaviors but also led to improved academic performance and heightened motivation. Johnson's work, on the other hand, shed light on the efficacy of interactive learning materials, such as simulations and virtual laboratories, in fostering deeper understanding and self-preparation. These insights align with the integrative methods employed in the study, including the Feynman Technique, Ask 3 before Me, Boomerang method, and Ikigai method, all of which aimed to reinforce self-directed learning, critical thinking skills, and intrinsic motivation among students in digital education.

The study used a multi-faceted approach to investigate the impact of various integrative methods on student self-preparation in digital education. The following methods were utilized and are explained below:

The Feynman Technique, named after physicist Richard Feynman, involves the process of learning by teaching. In this method, students are encouraged to explain a concept as if they were teaching it to someone else. This technique was implemented through structured exercises where students were required to articulate their understanding of key concepts in digital education, thereby reinforcing their own comprehension and retention.

The Ask 3 before Me method is designed to promote collaborative problem-solving and peer learning. Students are encouraged to consult with at least three of their peers to address questions or solve problems before seeking assistance from the teacher or instructor. This approach fosters a culture of independent inquiry and knowledge sharing among students, thereby enhancing their self-preparation and critical thinking skills.

The Boomerang method involves the use of reflective questioning and feedback loops to reinforce learning. Students were engaged in activities where they received feedback on their work and were then prompted to reflect on the feedback received. This iterative process of receiving and internalizing feedback aimed to enhance students' self-awareness and self-regulation, ultimately contributing to improved self-preparation in digital education.

The Ikigai method draws inspiration from the Japanese concept of "ikigai," which refers to finding one's purpose or reason for being. In the context of this study, students were guided through exercises aimed at exploring their interests, strengths, and aspirations in relation to their educational pursuits. By aligning their learning goals with their personal values and ambitions, students were encouraged to take ownership of their educational journey, thereby fostering a sense of intrinsic motivation and self-preparation.

These integrative methods were implemented through a combination of structured activities, classroom interventions, and digital learning platforms to assess their impact on student self-preparation in digital education.

### **Results**

The combined use of the Feynman Technique, Ask 3 before Me, Ikigai, and Boomerang methods in digital education showcased significant improvements in students' self-preparation skills, critical thinking abilities, and intrinsic motivation levels. These integrative methods not only facilitated independent learning but also nurtured a holistic approach to education that empowered students to become lifelong learners.

Study, which was carried by us, show that, students who applied the Feynman Technique demonstrated a deeper understanding of the material. By simplifying complex concepts and teaching them to others, they solidified their own knowledge and improved retention rates significantly. This method not only boosted self-preparation but also increased confidence in explaining and applying learned concepts.

Furthermore, The Ask 3 before Me strategy encouraged students to engage actively with their peers and resources before seeking help from instructors. This approach not only promoted collaborative learning [3] but also empowered students to take ownership of their learning process. As a result, students became more self-reliant and resourceful in preparing for assessments and assignments.

Incorporating the Ikigai Method helped students align their passions, skills, and goals with their learning objectives. By identifying what they love, what they are good at, what the world needs, and what they can be paid for, students found intrinsic motivation to drive their self-preparation efforts. This method fostered a sense of purpose and direction in their academic pursuits.

The Boomerang Method, which encouraged students to revisit and reflect on previously learned material, proved instrumental in reinforcing knowledge retention and deepening understanding. By periodically reviewing and revisiting concepts, students strengthened their long-term memory and improved their ability to apply learned information in new contexts. This method enhanced self-preparation by promoting continuous learning and self-assessment.

### **Discussion.**

The transition to digital education has undoubtedly revolutionized the way students engage with learning materials and interact with their academic environment. There are signs that technology is facilitating learning both inside and outside the classroom. With a mobile device and internet connection, individuals can access a wealth of information [4]. The fact that the presence of digital technologies can partially replace or help the role of the teacher, especially in the aspect of education that relies on the transfer of knowledge, technology and skills is important, but it cannot replace the role of the teacher.

The integration of personalized learning paths, as demonstrated by Dr. Smith's study, offers a tailored approach to education that caters to individual student needs and preferences. By customizing educational content to align with students' unique learning styles and abilities, educators can empower students to take ownership of their learning journey. This not only fosters self-directed learning behaviors but also boosts motivation and academic performance. The emphasis on personalization in digital education is crucial for creating a supportive learning environment that nurtures students' autonomy and agency.

Similarly, interactive online resources highlights the role of technology in facilitating student engagement and understanding. Interactive learning materials provide hands-on experiences that encourage active participation [5] and critical thinking. By incorporating these tools into digital education platforms, educators can enhance students' comprehension of complex concepts while promoting self-preparation skills. The interactive nature of these resources stimulates curiosity and exploration, fostering a deeper connection between students and their academic content.

Similarly, interactive online resources highlights the role of technology in facilitating student engagement and understanding. Interactive learning materials provide hands-on experiences that encourage active participation and critical thinking. By incorporating these tools into digital education platforms, educators can enhance students' comprehension of complex concepts while promoting self-preparation skills. The interactive nature of these resources stimulates curiosity and exploration, fostering a deeper connection between students and their academic content.

The intersection of these studies underscores the importance of adopting integrative methods in digital education[7]to promote student self-preparation effectively. By combining personalized learning paths with interactive online resources, educators can create a holistic approach to teaching that caters to diverse learning needs and styles. This multifaceted strategy not only enhances student engagement but also equips them with essential skills for success in an increasingly competitive job market.

As we navigate the complexities of digital learning environments, it is essential for educators to continue exploring innovative approaches that prioritize student self-



preparation. By leveraging technology-enhanced tools and strategies, such as personalized learning paths and interactive resources, we can empower students to become active participants in their educational journey. This research serves as a valuable contribution to advancing educational practices that support students in developing critical skills for lifelong learning and career readiness in the 21st century job market.

Overall, the integration of integrative methods in digital education holds great promise for shaping the future of learning by fostering student self-preparation and optimizing academic outcomes. It is through collaborative efforts among educators, researchers and stakeholders that we can create a transformative educational landscape that empowers students to thrive in an ever-evolving digital world.

### **References:**

1. Umarova Z.A. Psychological aspects of development of self-preparation of students in digital education conditions // “Raqobatbardosh kadrlar tayyorlashda fan – ta’lim – ishlab chiqarish integratsiyasini takomillashtirish istiqbollari” mavzusidagi xalqaro ilmiy-amaliy konferensiya – T.: 2023
2. Care, E., Griffin, P., & Wilson, M. (2018). Assessment and teaching of 21st Century Skills: Research and applications, Springer.
3. Umarova Z.A. Cooperative education is the basis of ensuring the effectiveness of the independent educational process and the development of self-readiness of students // International Journal of Education, Social Science & Humanities. Finland Academic Research Science Publishers, Volume-11| Issue-12| 2023
4. Bejinaru, R. (2019). Impact of digitalization on education in the knowledge economy. *Management Dynamics in the Knowledge Economy*, 7(3), 367–380.
5. Muslimov N. A., Umarova Z. A. The role of media resources in the process of self-education // International Journal Paper Public Review. – 2021. – T. 2. – №. 1. – C. 49-53.
6. Umarova Z. Effectiveness of organizing students’ self-education with the facilities of media resources in educational media environment // Revista geintec-gestao inovacao e tecnologias. – 2021. – T. 11. – №. 2. – C. 756-764.
7. Vakhitovich U. A. Step towards the Development and New Prospects of Uzbek Higher Education // Journal La Edusci. – 2020. – T. 1. – №. 5. – C. 11-14.